

Community Based Participatory Research to Assess Health Practices in Women of Childbearing Age

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Abstract

Health disparities among low-resource women and their children have had a constant presence in urban neighborhoods throughout the United States. **Purpose:** The purpose of this study is to identify common health behaviors among low-resource women of the Weinland Park area of Columbus, Ohio, which may contribute to present health disparities in the community. Health behaviors include preventative healthcare, health seeking behavior, and illness-based healthcare. **Method:** A Community Based Participatory Research model was used to collect qualitative data that revealed health behaviors of thirty-three low-resource women of reproductive age. The study used a respected member of the community to recruit voluntary participants and gather data using the interview guide. These surveys were constructed by an advisory board of women of child bearing age from Weinland Park in order to provide questions specific to the population. **Theoretical framework:** A theoretical framework based on Pender's Health Promotion Model was used in order to identify the different elements that contribute to an individual's health promotion behavior, including perception of health, individual characteristics and situational influences. **Results:** Sixty-seven percent of women in the survey stated they have a primary care provider (PCP), however their behavior in seeing their PCP is inconsistent. Women indicated they may report to a PCP or to an emergency department for treatment of health problems (54.5%, n=18). Thus, the working definitions of a PCP may be misconstrued. Other health maintenance activity, such as seeing a dentist, was not routine, but episodic. **Conclusions:** These discrepancies in the data indicate a misunderstanding of what constitutes primary care, and implies a need to further educate the population on

preventative health practice. This is significant not only to the health of the women and their community but also to healthcare institutions in a financial aspect. The data collected from this study can help to inform institutional policies to provide resources and preventative health practice tailored to the problems found in low-resource communities in order to avoid expensive illness-based healthcare.

Introduction

Populations with lower incomes and education levels and those from racial and ethnic minority groups have lower rates of adherence to recommended public health guidelines (Shelton et.al.,2010). Disparities between socioeconomic groups have influenced national changes in healthcare including (a) a shift to preventative care from a previous model of tertiary and episodic healthcare utilization; (b) an increase in national initiatives to prevent and treat obesity, diabetes, and cardiovascular disease; and (c) the introduction of the Patient Protection and Affordable Care Act. All of these initiatives focus on the elimination of health disparities, however current national health statistics show little change in health status of at risk populations, and some demonstrate a widening gap among the lowest and highest socioeconomic populations (Healthy People 2020, 2015).

Factors that affect health and health care encounters include (a) insurance, (b) proximity to care, (c) perceived health, (d) neighborhood safety, (e) experiences of racism and (f) trust in medical professionals (Mathis et.al.2013) The Centers for Disease Control and Prevention have identified lower rates of insurance coverage, primary care utilization, physical activity and access to nutritious foods contributing to higher rates of obesity, cardiovascular disease, diabetes, and low birth-weight births among lower socioeconomic individuals (2014).

The Weinland Park neighborhood in central Ohio is home to a large number of African-American women head of households. This neighborhood offered data collection among a low-income, underserved population of women. Assessing the chosen population's perceived health, health beliefs, healthcare utilization patterns, and perceived barriers to care generated knowledge that will be important in the implementation of population-specific interventions. National data shows similar populations have special healthcare needs. Investigation of the beliefs behind

health and healthcare practices can facilitate a connection between person driven care and the resources available.

Purpose

The purpose of the study is to identify health practices among low-income women of a Columbus neighborhood. In addition to a congruency with at-risk populations identified in national statistics, this population offers data on health behaviors of women, a group that often receives inadequate healthcare in relation to their healthcare needs. Women require lifelong healthcare with significant needs during reproductive age and act as leaders and educators in their families' health. Identification of health practice and beliefs among low-income women can identify issues in need of intervention to improve health among this at risk population, as well as improve family health by disseminating health knowledge through the educators of families.

Theoretical Framework

Nola Pender's Health Promotion model was used to process the data collected. The model, seen in Figure 2, consists of three components, each having sub-components, which are "Individual Characteristics and Experiences," "Behavior Specific Cognitions and Affect," and "Behavioral Outcome-Health Promoting Behavior." Pender theorizes that (a) past experiences with the same or similar health behaviors; (b) individual biological, psychological, and sociocultural characteristics, (c) perceived benefits and barriers, (d) interpersonal and social influence, and (e) commitment all affect changes in a person's health behavior. This theoretical framework guided the research to examine perceptions of health and health care, previous healthcare related experiences, and health behavior outcomes, in the form of reported health behaviors and healthcare utilization.

Review of Literature

There are large health disparities between the highest and lowest socioeconomic classes, but more recent studies have started to identify reasons for these health disparities. Areas of interest include health behaviors, barriers to care, health care utilization patterns and perceived health, and a study done by Dennis et al., stresses the importance of studying women's health. "Women have specific reproductive and lifelong health needs and play an essential role as managers of family health" (2013, p. 394). Research shows low-income women have a higher rate of poor health behaviors and utilization of episodic care. A case-controlled study found a high rate of emergency department care usage at baseline among 237 homeless and low-income women (Weinreb, 2006). A review of the literature found many of the same recurring themes of health care behaviors, knowledge and barriers. Research shows a need for intervention among women in the country's disadvantaged populations.

In a study done by Gornick and Swift, in addition to socioeconomic status, race and ethnicity were considered when gathering data about access, use and quality of healthcare. In this study, health care utilization and patterns of health prevention and promotion were highest among the population's healthiest people (2002). Socioeconomic status was not listed as a factor, however in a study by Shelton, Goldman, Emmons, Sorenson and Allen, populations with lower incomes and educational levels as well as those from racial and ethnic minority groups, were more likely to have poor adherence to recommended public health guidelines, when compared to those with higher incomes and educational levels (2011). Other causes of health disparities indicated in current research include, (a) geographical proximity to health centers, (b) availability of community health

programs, (c) access to safe community spaces for exercise, (d) presence of a support system, (e) perceived health, (f) health literacy, and (g) complex reimbursement and insurance coverage (Shelton et.al, 2011, Shieh et.al, 2010, Mathis et.al, 2013, Baird et.al, 2009, Archibald & Rankin, 2013).

In recent years, one of the biggest combatants of health disparities has been the introduction of The Patient Protection and Affordable Care Act (PPACA), which was implemented in 2010. The act increased insurance coverage across the country in hopes of allowing those previously uninsured access to greater health care. A similar government program was enacted in Massachusetts in 2006. Dennis et al. (2013) found an increase in health screening utilization among Massachusetts' women after the implementation of health care reform. Their study found that, after reform, 39.5% of women were covered under the Commonwealth Care program; 30.6% utilized the Health Safety Net, put in place for those ineligible for subsidized insurance coverage; and 8% of women were covered under federal Medicaid. Throughout all coverage plans, post-reform, except Medicaid, there was an increase in mammogram, cervical cancer, and blood pressure screenings. This can act as an important indicator of the changes that may be seen with the implementation of PPACA. A significant aspect of Massachusetts' state reform is the use of a Health Safety Net, which recognizes those who will fall through the cracks of health care. These people do not qualify for subsidized insurance, which is for populations below 300% of the Federal Poverty Line, but may not have the resources to purchase private insurance.

An important issue brought up by Dennis et al. (2013) is the presence of gaps in health reform. Those identified as at risk for being left out of the health care reform were

undocumented immigrants, minors and young mothers, and populations outside of urban settings. Immigrants were only eligible for urgent and emergency care, and those eligible for public or subsidized insurance commonly did not understand benefits and delayed or stopped seeking medical care. Minors and young people are eligible to stay on their parents' health insurance plan until age twenty-six following the reform, however due to issues with confidentiality of care many avoid care. Women living outside of urban areas of the state encountered fewer community health resources, a finding mirrored in a study performed by Mathis, Barnes and Shah (2013). The study found that community health services were disproportionately spread through five Midwest and Great Lake Regional states. The absence of a community health center with prenatal care was directly correlated to low-birth weight babies. Both studies suggest a need for more community health resources outside of metropolitan areas. These findings suggest that post-health care reform women are still a vulnerable population and are subject to health care issues that are complex.

In a community-based primary prevention program aimed at decreasing metabolic syndrome among socioeconomically disadvantaged women, barriers to and motivators of healthy living were identified (Gilstrap et.al, 2013). Sixty-four women participated in free community led cooking and exercise classes. After one year, participants demonstrated a decrease in metabolic syndrome, from 64.7% to 34.9% of the participants and a further decrease in year 2 to 28.2%. Researchers also identified an increase in participants' high-density lipoprotein (HDL) levels, decrease in blood pressure, a decrease in anxiety, depression and stress, and a trend upwards in nutrition and exercise. The study identified motivators for the women to participate in the program as the

location of the classes being geographically close to the women, classes being offered in Spanish and English, providing community support to participants, and incorporating women from the community as class leaders. Barriers reported by the participants were cultural, financial and educational. The study also identified a decrease in reporting important health history from year to year. Researchers attributed this to a possible belief that a health condition, such as hypertension, hyperlipidemia or diabetes mellitus type 2, had been cured and the participants no longer needed to report this to medical professionals. The team of researchers acknowledged support among women in the group and used a team-based approach, practices that were supported in a study done by Shelton et.al (2011), which identified a multilevel approach as a key factor in successful implementation of a community intervention. The need for systemic and social support in addition to a multilevel approach is indicated in Baird and Cooper's (2009) study focusing on diet change and breast-feeding habits. The researchers used an educational approach with continued support after the initial encounter. Continued support is something that many people do not receive when utilizing emergency care in place of primary care. Their study also identified better outcomes in women with family involvement in care and social support from peers.

In addition to lack of support systems, research shows that racism and the perception of racism can lead to poor health outcomes. In a study that looked for a relationship between poor birth outcomes and experiences of racism in African-American women in California, women reported experiences of several different types of racism (Nuru-Jeter et.al, 2009). In a sample of 140 socioeconomically diverse African-American women, types of racism identified included (a) direct, (b) vicarious, (c)

interpersonal, (d) institutional, (e) internalized and (f) anticipated racism. Women most frequently reported experiencing direct interpersonal racism, however racism experienced vicariously through children was also frequently reported and created high levels of stress in the women. Nuru-Jeter et.al. discussed the significance of stress related to racism on health outcomes. Stress has physiological consequences on the body and over time leads to deterioration. The study suggested increased stress, due to racism, might play a role in making African-American women the population with the highest rates of hypertension in pregnancy, a condition that has major implications on the health of the mother and baby. In another study that reviewed health care utilization patterns by low-income women, non-white race was associated with an increased use of emergency departments and poor health outcomes (Weinreb et.al, 2006). Research indicates that when studying health behaviors and outcomes, consideration of race is important in addition to other sociocultural characteristics of a population.

In another study a racially-integrated neighborhood in Baltimore demonstrated results that location rather than race may have implications on the health of a community. The study looked at a Baltimore neighborhood and the rate of hypertension, obesity, diabetes mellitus, smoking and use of health services among its population of women. The study compared its data to national data on health behaviors, hypothesizing that “it may be that racial and ethnic disparities observed in national data reflect disparities based on features of the communities where people live” (LaVeist et.al, 2011, p. 1881). The researchers believe that “disparities in reimbursement rates between Medicaid and other third-party payers may create ‘medical deserts’ in some minority communities” (2011, p. 1885). This research is significant because it challenges previously held beliefs that

health disparities where racially created and introduces the idea that the neighborhood, its living conditions, and access to care in the area may have a greater impact on individual health.

Methodology

Research Design

This study was a secondary analysis of data collected from the *Partnership with Community Properties (CPO) Impact Corporation to Identify Health Concerns of Female CPO Residents of Childbearing Age* by Dr. Thelma Patrick of The Ohio State University.

Sample

Data collection occurred in partnership with Community Properties of Ohio (CPO), a non-profit residential housing company that provides and manages section 8 housing in central Ohio. The 33 participants in the study were residents of CPO housing in the Weinland Park neighborhood of Columbus, Ohio. Eligibility restrictions required that participants be women of childbearing age between the ages of 18 and 42 and the head of their CPO household.

Data Collection Procedures

In order to investigate within the neighborhood, a Community Based Participatory Research (CBPR) model was utilized. The University of Washington's Community Health Scholars Program defines CBPR as "a collaborative approach to research that equitably involves all partners in the research process and recognizes the unique strengths that each brings" ("Developing and Sustaining Community-Based Participatory Research Partnerships: A Skill Building Curriculum," 2015). In contrast to traditional research, where the researcher acts as an outside observer, CBPR works by including the community members in the research process; working side by side to form a relationship while gathering data. Following this model two community advocates were chosen based

on recommendations from the CPO Getting Ahead program. The advocates were given a script, tape recorder, and survey; and went door-to-door in the Weinland Park neighborhood. The advocate used the suggested script to state their purpose and goals as well as reassure the participant that no personal identifiers would be used and the information collected was confidential.

Data Collection Instrument

The Survey was created in collaboration with the two community advocates, eight members of an advisory board selected from the community. Interviews were conducted with the women who volunteered to participate and common health concerns were identified as important topics for the survey. The interviews also provided a direction for language utilized on the survey.

Data Analysis

Participants responded to open ended questions about their healthcare beliefs, utilization pattern, perceived health, and perceived barriers to care. The responses were recoded in the SPSS system in order to quantify similar responses.

Results

Participants responded to open ended questions about their perceived health, health practices, utilization pattern and perceived barriers to care. Phrases and key words were recoded in the SPSS system in order to quantify similar responses.

Perceived Health & Health Practices

Women were asked a series of questions about their perceived health and ways they stay healthy. In response to the question, “How healthy do you feel?” over half of the women (57.6%, n=19) reported feeling poor or fair, and 45.5% (n=15) had concerns about their health. 63.6% (n=21) stated they are able to eat healthy food, however of the 90.9% (n=30) of participants who used food stamps, over three quarters (76.7%, n=23) answered yes when asked if they ran out. Women were also asked “Do you drink enough water?” and 13 (39.4%) self-reported they do not. When asked how much water they drink, answers ranged from “4-5 glasses a day” to “1 cup every 5 days.” Responses to an open-ended question about staying healthy included, healthy eating, physical activity, regular healthcare, episodic healthcare, daily personal hygiene, and “the best way possible.” Healthy eating was the top answer with 30.3% (n=10) of the women, and eight women (24.2%) listed some type of regular health care as their method of living a healthy life.

Women also participated in a questionnaire about their sexual health and over two-thirds (66.7%, n=22) self-reported a healthy reproductive system. Participants were asked about frequency of pap smears and mammograms, as well as birth control and sexually transmitted infection (STI) prevention. Over half (63.6%, n=21) of the women

reported regular pap smears, however because the average age of participants was well under fifty, only 5 (15.2%) women reported regular mammograms. When asked whether they had received an HPV vaccine, over three-quarters (78.8%, n=6) had not. Over half (54.5%, n=18) of the women stated regular STI testing was not a part of their healthcare. The most common method of birth control and STI prevention was abstinence (33.3%, n=11). Other prevention methods included condoms, the Depo Provera injection, and a monogamous relationship. Two women reported no method of prevention and one woman reported using a pregnancy test.

Healthcare Utilization

Consistent with previous research, women reported high rates of emergency department use. Over half of the women (57.6%, n=19), when asked where they go when they have a health problem, listed the emergency department. The women were able to list multiple responses to open ended questions; therefore it was possible for participants to list the emergency department as well as the doctor. Of the women who listed the emergency room as a place to go for medical attention, 63.2% also responded yes to having a primary care provider. In addition to high rates of emergency department use, women who had primary care providers (66.7%, n=22) reported regular use 68% (n=15) of the time. Another topic of healthcare utilization investigated was the issue of insurance coverage. Twenty-seven (81.8%) women reported insurance coverage with 77.8% (n=21) also responding yes to having a primary care provider (PCP). Of the six women who self-reported no coverage by insurance, almost all (83.3%, n=5) responded no to having a PCP. Two areas of health identified as underutilized were dental care and mental health services. Less than a third of the women (30.3%, n=10) reported seeing a

dentist regularly, and even fewer women (24.2%, n=8) utilized mental health services, even though over 2/3 (66.7%, n=20) had experienced domestic violence and 72.7% (n=24) felt their lives to be stressful.

Barriers to Care

Women in the study were asked an open-ended question about barriers to healthcare as well as directed questions about specific barriers. In response to the open-ended question about barriers, women listed transportation and negative feelings towards physicians. One third of the women (33.3%, n=11) listed transportation as a barrier to care, however when asked specifically if transportation prevented attending appointments over half of the women (57.6%, n=19) responded yes. Women were also asked if they had been mistreated or discriminated against by a provider. Eight women (24.2%) reported mistreatment and of those eight, 62.5% (n=5) also reported the mistreatment or discrimination prevented further health seeking. In addition to direct survey questions about barriers to care, women were asked what caused stress in their lives. Financial issues were reported most often (48.5%, n=16) and nine women (27.3%) stated that life or everything stressed them out. Women also listed family and education or lack of as stressors in their lives.

Discussion

The changing healthcare market puts increased emphasis on preventative care (Healthy People 2020, 2015) and the data from this study reveal important conceptions of an increasingly important population of healthcare consumers. Participants identified positive health behaviors and healthcare utilization, however women in the study also reported barriers to care and troubling health behaviors. Healthy eating and physical activity were common health management behaviors, however women also reported inadequate food support through WIC and food stamps, with many reporting running out of food stamps. In addition to troubling reports of an inadequate food supply, women also reported inadequate water consumption, with some reporting only one glass in a week's time. Based on a theoretical framework of Pender's Health Promotion Model, women were asked to self-report their health status. The majority of women had a fair or poor self-perceived health status. An important part of behavioral change, according to the Health Promotion Model, is identifying goals that are realistic. If women are reporting poor health statuses they may think improving their health is unrealistic.

Women in the study produced responses that were consistent with current health guidelines. Such responses included eating fruits, vegetables and low carbohydrates; drink four to six glasses of water a day; and exercising regularly. However, using a survey and self-reporting, this study was unable to assess whether these reported behaviors were consistent with performed behaviors. According to Pender's model, it is necessary to have the knowledge, resources and intent to carry out a health behavior. In future research studies, the ability to monitor performed behaviors will be an important indicator of factors associated with health status.

Data gathered through door-to-door surveys revealed a trend of emergency department utilization, an act contrary to Healthy People 2020's transition to a preventative care model. Women were able to list multiple modalities of health care and many listed both emergency medicine and a primary care provider. In future studies it will be important to clarify participant understanding of health care professionals as well as language used to describe different aspects of health care. Because language clarification was not a part of this study, the definition of primary care provider and doctor are undefined. With a definition created by participants, researchers would be able to further identify methods of healthcare utilization. The high usage of emergency medicine is consistent with a study done by Weinreb, et.al (2006) that identified high emergency department utilization by low-income, immigrant and ethnic minority populations.

Perceived barriers to care were also an important finding from the research. Women listed transportation, financial, and discrimination as barriers to care. In a study done by Archibald and Rankin (2013) complex reimbursement patterns, constraints on physician resources and geographic accessibility were identified as potential barriers to care. Women identified transportation as the largest barrier, which is consistent with this study. In addition to transportation issues, Rankin's study identifies geographic accessibility as a barrier to care. When health resources are made more available in a community, access to care is increased. The significance of proximity of care was identified in a study performed by Mathis, Barnes and Shah (2013). The study aimed to identify effects of a disproportionate spread of community health centers across the Midwest. The data showed a correlation in low birth weights and low number of community health centers. In addition to barriers due to lack of transportation, insurance was recognized as a barrier to care. Almost all of the women who did not have health

insurance also did not have a primary care provider. The Affordable Care Act aims to make health insurance available to all Americans, however, as evident by this study, there are gaps in coverage.

Another area of concern based on the research is dental care utilization and access. The majority of women reported low utilization of dental services. Current Medicaid coverage does not include dental care for adults, and according to a study done by Bailit and D'Adamo (2012) many dentists are hesitant to accept patients with Medicaid due to low reimbursement. A poll to assess utilization rates found a rate of 65% when asked about dental visits in the past 12 months and a more accurate rate of 45% when asked about visits within the past 3-4 months, which is consistent with reports from participants in this study. The lack of dental care is significant when considering the long-term effects of periodontal disease. Olsen (2015) found periodontitis is associated with multiple diseases processes including, cardiovascular disease, chronic kidney disease, type 2 diabetes, obesity, cancer, metabolic syndrome, and adverse birth outcomes and preeclampsia in pregnant women. Additionally, minor evidence found dental plaque to contain pathogens that exacerbate chronic obstructive pulmonary disease and pneumonia.

Mental health services were also under-utilized compared to the frequency of self-reported mental health issues among participants. In a previous study, among a population of women ages 18-44, 14% of participants had current depression and 2.7% had current serious physiological distress (Farr et.al., 2010). Nonwhite women, those with children and urban women had decreased chances of a clinical diagnosis of depression. Medicaid.gov (2015) reports that nearly 12 million visits to US emergency departments in 2007 involved people with a mental disorder, substance use disorder, or both. Current Medicaid guidelines on behavioral

health services are state-based and coverage of mental health care is not guaranteed in every state.

Implications of the Study

Findings of the study implicate a need for further education, increased vision and dental resources, and implementation of a combatant of barriers due to transportation. Education about regular healthcare and the definition and importance of a primary care provider could mitigate confusion when women are deciding whether to use the emergency room or go to a primary care provider. This will develop a stronger focus on preventative care as well as reduce congestion in hospital emergency departments. The low rate of Human Papilloma Virus vaccinations and frequent occurrence of celibacy as birth control demonstrate a need for increased sexual health education. In addition to education, an increase in resources would be beneficial to low-income populations. Because Medicaid has a complicated system of reimbursement, the incorporation of community health centers with vision and dental clinics could help to eliminate the disparities in access to care. Implementation of community health centers would also help to combat transportation barriers. Accessible healthcare financially and geographically are important factors to consider when planning health care for lower-income neighborhoods.

Recommendations

In future studies clarification of language used by both researcher and participant will be necessary to gather accurate data. This study found use of emergency departments and primary care providers, however terms for each were variable. Participants used words such as “doctor” and listed specific hospitals when asked where they go for care. Studies in the future should clarify what the participant means when using specific terms. For example, the word doctor to some means a primary care provider, however to others it could mean the emergency

department. Language became an issue again when participants were asked about teeth cleaning. A number of women responded with occurrences of teeth cleaning that suggested teeth cleaning in terms of personal hygiene rather than a dental cleaning. In future studies observation of health behaviors will be important. Because women were aware of the study and self-reported health behaviors, actual behaviors were unknown. There could be an incongruity in perceived and actual health behaviors that creates differences in data and national statistics on population health. Data on actual health behaviors will allow for specific interventions that will have a greater impact on health.

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